Do Orcas Use Symbols?

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Recent theoretical studies of culture in whales and dolphins have reviewed experimental research on captive animals and patterns of behavioral variation found in wild populations. Captive studies of cognitive processes in dolphins, such as imitation, teaching, and use of gestures and other symbolic representations, have provided indications of the capacity for culture in dolphins. The ethnographic approach, based on evolutionary ecology, has found evidence that the complex and stable vocal and behavioral cultures of sympatric groups of killer whales (*Orcinus orca*) appear to have no parallel outside humans and represent an independent evolution of cultural faculties. To date, however, no published theory has provided a synthesis that accommodates both the experimental findings and the ethnographic evidence. The theory of symbolic interactionism, borrowed and adapted from sociology, provides a conceptual framework for integrating the experimental "process-oriented" and the ethnographic "product-oriented" perspectives. Symbolic interactionism may help account for the divergent and complex cultural traditions found in sympatric orca populations.